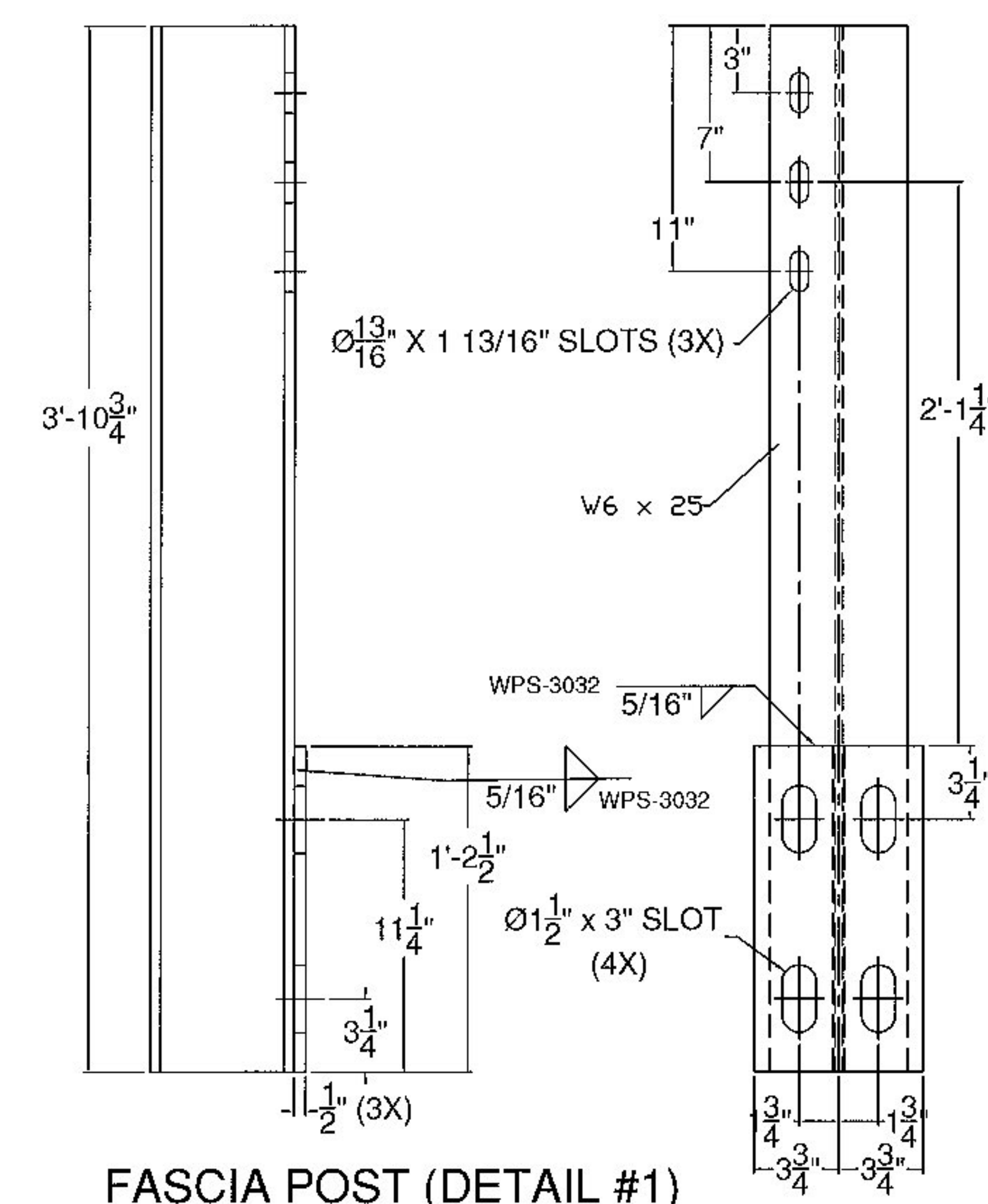
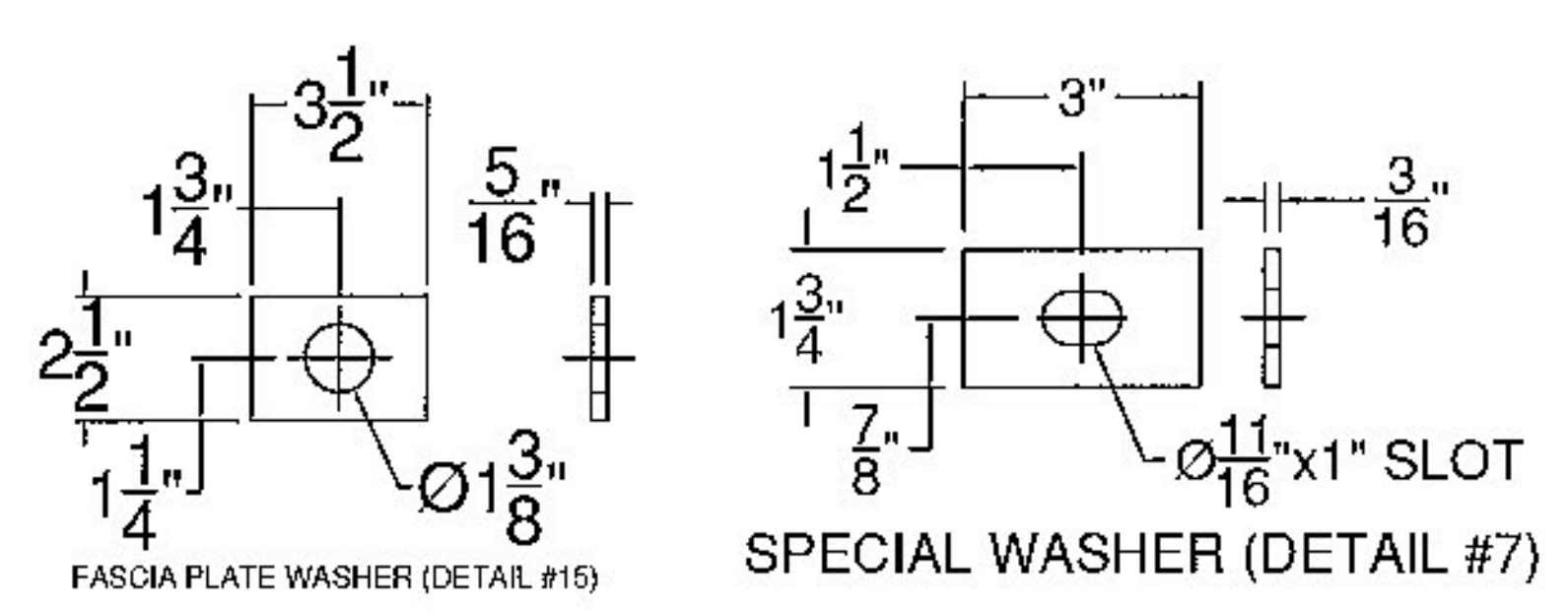
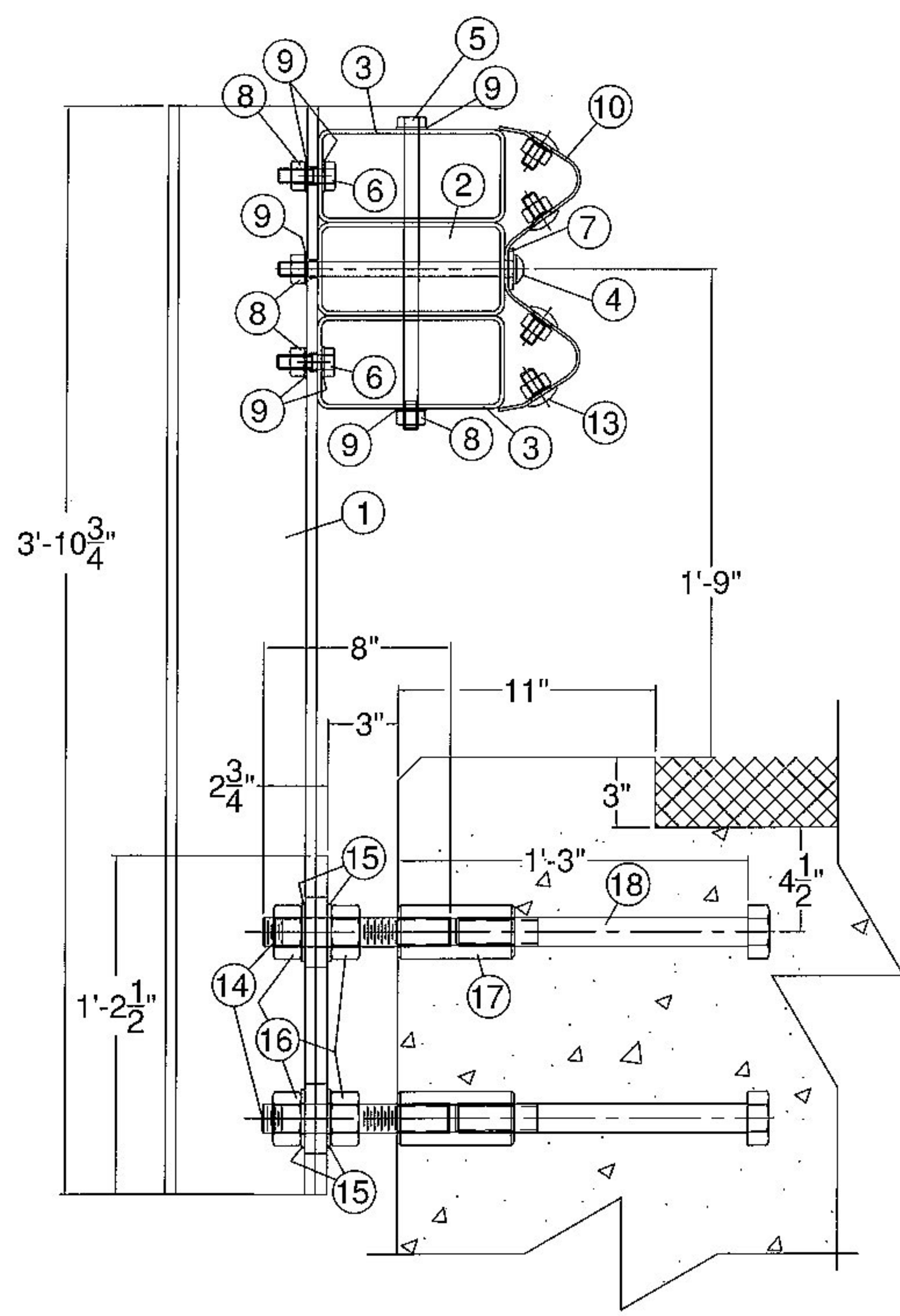


WEST RAILING, FACING WEST



FASCIA POST (DETAIL #1)

BILL OF MATERIAL				
DET#	QTY	PART		ASTM DESIGNATION
1	28	0033.903090	W6x25, TYPE 1, FASCIA POST @ 3'-10 3/4'	ASTM A572 Gr. 50
2	1	TBD	HSS8x4x3/16" TUBING @ 19'-8"	ASTM A500 Gr. B
2	1	TBD	HSS8x4x3/16" TUBING @ 19'-8"	ASTM A500 Gr. B
2	6	TBD	HSS8x4x3/16" TUBING @ 18'-8 1/2"	ASTM A500 Gr. B
2	2	TBD	HSS8x4x3/16" TUBING @ 16'-7 1/2"	ASTM A500 Gr. B
3	64	0033.90045	HSS8x4x3/16" TUBE BLOCKOUT @ 6"	ASTM A500 Gr. B
4	32	0080.05710	5/8"x10" POST BOLT, NUT, & F.W.	ASTM A307
5	32	0080.15595	5/8"x13" HEX BOLT	ASTM A307
6	96	0080.15036	5/8"x2" HEX BOLT	ASTM A307
7	32	0080.15913	3/16"x1 3/4"x3" SPECIAL WASHER	ASTM A572 Gr. 50
8	128	0080.15901	5/8" HEX NUT	ASTM A307
9	256	0080.15911	5/8" FLAT WASHER	ASTM A307
10	10	6043.00012	10 GAUGE "W" BEAM @ 12'-6" C.-C.	AASHTO M180, CLASS B, TYPE II
10	4	TBD	10 GAUGE "W" BEAM @ 11'-6" (SPECIAL) C.-C.	AASHTO M180, CLASS B, TYPE II
10	2	6043.00002	10 GAUGE "W" BEAM @ 6'-3" C.-C.	AASHTO M180, CLASS B, TYPE II
11	4	0033.90301	W6x25 POST @ 6'-0" O.A. (POST #1)	ASTM A572 Gr. 50
* 12	6	-	DELINEATOR - TO BE SUPPLIED BY FR LAFAYETTE	ALUMINUM
13	144	0080.15013	5/8"x1-1/4" SPLICE BOLT (PANEL ASS'Y)	ASTM A307
13	144	0080.15905	5/8"x1-1/4" RECESSED NUT (PANEL ASS'Y)	ASTM A307
14	112	0042.21408	1 1/4"x8" STUD	ASTM A449
15	224	0080.19922	5/16"x2 1/2"x3 1/2" FASCIA PLATE WASHERS	ASTM A572 Gr. 50
16	224	0080.19918	1 1/4" HEX NUT	ASTM A563
17	112	0080.19921	1 1/4" x 5" COUPLER NUT W/ RT. HAND MACH. THD.	ASTM A563
18	112	0042.21412	1 1/4" x 12" MACHINE BOLT, THREAD LEN. @ 3"	ASTM A449
19	8	0033.90074	C7x9.8 CHANNEL SPLICE @ 2'-6 1/2"	ASTM A36

\*- SUPPLIED BY OTHERS

NOTES:

- ALL WORK AND MATERIALS SHALL CONFORM TO SECTION 525.
- GRIND ALL EDGES TO A MINIMUM RADIUS OF 1/16", PRIOR TO GALVANIZING.
- ALL POSTS SHALL BE SET NORMAL TO GRADE.
- SPLICES FOR THE STEEL BEAM GUARDRAIL SHALL LAP IN THE DIRECTION OF TRAFFIC.
- A RAILING JOINT SPLICE SHALL BE PROVIDED IN ANY RAIL, DAY SPANNING THE END OF AN INTEGRAL ABUTMENT BRIDGE AND AT ALL SUPERSTRUCTURE EXPANSION JOINTS.
- SEE STANDARD DRAWING G-16 FOR DETAILS OF DELINEATORS. A DELINEATOR SHALL BE INSTALLED AT 30 FOOT SPACING OR THE NEAREST POST. WHITE IS TO BE INSTALLED ON THE DRIVER'S RIGHT. FOR ONE WAY BRIDGES, YELLOW IS TO BE INSTALLED ON THE DRIVER'S LEFT.
- THE 1/2" EXPANSION JOINT SHOWN IN THE RAILING ELEVATION IS DESIGNED FOR BRIDGE LENGTHS UP TO 80 FEET. ANY LONGER SPANS WILL HAVE TO BE MODIFIED TO ACCOUNT FOR THEIR MOVEMENT.
- FOR RADII LESS THAN 950 FEET, HSS&4 TUBES SHALL BE SHOP BENT TO FIT THE APPLICABLE CURVE.
- THE MINIMUM DISTANCE FROM THE LAST POST TO THE END OF SLAB IS 1'-6".
- FERRULES SHALL BE 12L4 COLD DRAWN CARBON STEEL.
- HOLES IN RAIL FOR RAIL TUBE ATTACHMENT WILL BE SHOP DRILLED. HOLES SHALL BE COATED WITH AN APPROVED ZINC-RICH PAINT PRIOR TO INSTALLATION.
- THIS RAILING MEETS THE REQUIREMENTS FOR A TL-2 SERVICE LEVEL.

Vermont Agency of Transportation  
**RECEIVED**  
 CK'D BY SMC/RSF OK'D BY WDL  
 February 17, 2016  
 RESUBMIT No Approved  
 BY RSY DATE 02/23/2016

ITEM #: 525.44

STRUCTURAL STEEL TO COMPLY W/ ASTM A6  
 GALVANIZING TO BE PER ASTM A123, UNLESS OTHERWISE SPECIFIED.  
 TOLERANCE UNLESS OTHERWISE NOTED:  
 HOLES - ± 1/32"  
 FRACTIONS - ± 1/16"  
 ANGLES - ± 1/2"

SHEET 1 OF 2

### BRIDGE RAIL DETAILS SHEET

ROUTE # TH-4, RURAL MINOR COLLECTOR, CLASS 2, BRIDGE 4 OVER WHITNEY BROOK  
 TOWN OF CRAFTSBURY, COUNTY OF ORLEANS, VERMONT

R NO.	DATE	DESCRIPTION	BY	R NO.	DATE	DESCRIPTION	BY
E 1	2/17/16	REVISED PER 2/11/16 EMAIL	E.P.				

DRAWN	E.P.	1/13/16
CHECKED	D.L.	1/14/16
APPROVED		
SCALE	SCHEMATIC	

**ELDERLEE, INC.**  
 OAKS CORNERS, NEW YORK 14518  
 email: diong@elderlee.com / epesk@elderlee.com  
 Tel: 315-789-6670 Fax: 315-789-6615

DRAWING NO. FR LAFAYETTE-CRAFTSBURY (24)